In the Claims

1-27. (Cancelled)

28. (Previously Amended) A rechargeable electrochemical battery cell comprising:

a housing;

at least one pair of flat electrodes encased in said housing and immersed within an electrolyte, at least one of said electrodes including an electrically conductive substrate and compressed particles of an active material deployed on said substrate ,each of said electrodes being wrapped in a flexible separator permeable to ions of the electrolyte;

an elastic means applying pressure on each of said electrodes during charging and discharging of said_cell so as to maintain close contact between said particles themselves and between said particles and said substrate to counteract periodic changes to the electrode's volume resulting from electrochemical reaction between the electrolyte and the active material taking place during charging and discharging of said cell.

29. (Previously Presented) The electrochemical cell of claim 28, wherein said substrate is made of a fabric woven from fibers of a material selected from the group consisting of carbon, synthetic material, nylon and polyester.

30. (Previously Presented) An electrochemical cell according to claim 29, wherein the thickness of the fabric is between about 10 and 100 microns.

31. (Previously Presented) An electrochemical cell according to claim 28, where the electrodes are selected from the group consisting of: Ni/Cd, Ag/Zn, Pb/PbO.

32. (Previously Amended) An electrochemical cell according to claim 28, wherein the thickness of each electrode is between about 0.8 and 10 mm.

33. (Previously Presented) An electrochemical cell according to claim 28, wherein the particles have a particle size between about 1 and 10 microns.

34. (Previously Presented) An electrochemical cell according to claim 28, wherein said means for applying pressure comprises a spring.

35. (Previously Presented) An electrochemical cell according to claim 28, wherein the electrodes are helically wound.

36. (Previously Amended) An electrochemical cell according to claim 28, wherein the separator includes woven fabric having high mechanical strength.

37. (Previously Presented) An electrochemical cell according to claim 28, wherein the substrate is made of a flexible metal grid.

38 (Previously Amended) An electrochemical cell according to claim 28, wherein said substrate is made of a fabric woven from graphite fibers, said graphite fibers being coated with a impermeable metal coating.

39. (Previously Presented) An electrochemical cell according to claim 38, wherein said metal coating has thickness of about 5 to 15 microns.

40. (Previously Amended) An electrochemical cell according to claim 38 , wherein the cell is a Silver-Zinc rechargeable cell, and wherein the coating on fibers of cathode substrate is made of a material selected from the group consisting of Nickel and Silver and the coating on fibers of anode substrate is made of a material selected from the group consisting of tin, indium, cadmium, and lead.

41. (Previously Presented) An electrochemical cell according to claim 28, wherein said housing is elastic and wherein said means for applying pressure comprises said elastic housing.

42. (Previously Amended) An electrochemical cell according to claim 28, wherein at least one separator is made of a material that swells within the electrolyte, thereby applying said pressure on said electrodes.

43. (Previously Presented) An electrochemical cell according to claim 28, wherein the separator is made of a material impermeable to ions of said electrode materials.

44. (Previously Amended) An electrochemical cell according to claim 28, in which said separator is made of polyethylene-polypropylene film.

45. (Previously Amended) An electrochemical cell according to claim 28, in which said separator is made of porous material capable of impeding growth of dendrites during functioning of the cell.

46. (Currently Amended) An electrochemical cell according to claim 28, wherein said active materials are carbon and ~~Silver~~ silver .